

Introduction

This is a moment of unprecedented opportunity. Today, as never before, we recognize the links among the land, air, oceans and human activities. We have access to advanced technology and timely information on a wide variety of scales. We recognize the detrimental impacts wrought by human influences. The time has come for us to alter our course and set sail for a new vision for America, one in which the oceans and coasts...are healthy and productive, and our use of their resources is both profitable and sustainable. – An Ocean Blueprint for the 21st Century, US Commission on Ocean Policy, September 2004.

On the heels of the completion of two major, comprehensive examinations of our nation's management of the ocean¹, the Maine Legislature directed the Land and Water Resources Council² ("LWRC") to undertake a two-year study "to explore and document potential new and innovative concepts for the management of Maine's embayments³" and submit a final report by January 15, 2007 to the Legislature's Joint Standing Committee on Marine Resources ("Committee")⁴. Appendix A included the text of the Legislative directive. This introduction provides an overview of the nature, focus and principles underlying the Council's recommendations, as well as its approach to the definition of bay management, the study's methodology, purpose and related scope.

Overview

There is nothing perhaps as integral to Maine's identity, its past, its present, and its future, as its ocean. Lying along over 5,000 miles of meandering coastline and over nearly two million acres of public submerged lands, Maine's nearshore⁵, coastal waters are part of one of the most productive and rich ecosystems in the world, the Gulf of Maine. Since long before colonial times, these waters and the lands beneath them have provided people with bountiful food, transportation, and spiritual sustenance. Commercial fisheries, boat-building and related marine industries have shaped the locations, traditions and values of our coastal communities and nourished our natural resource-based economy. Maine ports and harbors have handled the world's commerce.

¹ The federally appointed US Commission on Ocean Policy completed its report in 2004, while the Pew Ocean Commission's privately funded analysis of similar topics was completed in 2003.

² The LWRC is made up of the Commissioners of the Departments of Marine Resources, Environmental Protection, Agriculture and Rural Resources, Inland Fisheries and Wildlife, Economic and Community Development, Transportation, Health and Human Services, and Conservation and the director of the State Planning Office, who serves as chair. The LWRC was created in statute to advise the Governor and Legislature and help coordinate agency actions on natural resources policy-related matters.

³ Embayments are relatively shallow, semi-enclosed coastal water bodies. In Maine the openings from bays to the larger Gulf of Maine are restricted by an irregular and complex shoreline.

⁴ PL 2003 c. 660, Part B (LD 1857)

⁵ As used in this report, the term "nearshore" or "coastal waters" refers to marine areas within three nautical miles of the shore that are under the jurisdiction of and, with few, limited exceptions owned by the State of Maine.

Maine's beaches, coves and stone coast have long been a national and international destination of choice for travelers, our sea and shores an ever-renewing source of inspiration for painters, writers and other artists. Today, despite challenges, Maine's coastal resources continue to offer promise to people and communities inside Maine and beyond.

While the sea remains a constant source of sustenance, the lifeblood of Maine, the uses which our society makes of this diverse and complex resource are changing, diversifying, and intensifying. Long a frontier, and in many ways a true public commons, our nearshore ocean environment is becoming increasingly settled and populated in the wake of these many changes. Aquaculture, a type of farming of our nearshore waters, has joined traditional capture fisheries as an economically significant current or potential use in a number of areas. Sea kayaks and other types of recreational watercraft, large and small, have increasingly joined fishing boats at town landings. More second-home buyers and retirees have joined coastal communities that have been for generations home to families that earn their livings on the water. With changes in national and world energy markets, Maine is increasingly a proposed host to regionally significant energy infrastructure, including LNG terminals. With the advance of technology, and geopolitical developments and potential global scale climate change that urge increased independence from fossil fuels, Maine's nearshore environment's potential to produce renewable energy from the wind and tides is of increasing interest and importance. Other technological advances that enable more detailed understanding of the physical, chemical, biological and spatial characteristics of the marine environment provide means for more informed public and private decisions on regarding uses of this environment.

The Council has undertaken this study and offers its recommendations in light of the central importance of Maine's nearshore environment to its economy and way of life and with recognition that the long-term sustainability of this environment depends on maintenance and enhancement of the integrity of its ecological systems. In undertaking this study, Maine joins California, New York, Massachusetts, and other states, which like the U.S. Commission on Ocean Policy and the Pew Ocean Commission, have recently prepared assessments of the efficacy of ocean resource management efforts. In common with its sister states, the State approaches this study as the primary steward and trustee of the public resources in Maine's nearshore environment, which are held in trust by the State for the benefit of current and future generations. Growing coastal populations, increased commercial and recreational use of state waters, and the introduction of new potential uses such as coastal energy development provide the impetus for reexamination of methods and systems for ocean management aimed at optimizing the public benefits of this broad expanse of the public domain.

In the Council's view, the following principles, derived in part from comments, views and suggestions expressed by participants in this study, articulate values widely-shared in Maine among resource users, coastal managers, conservationists, other stakeholders and the public, that do and should continue to animate and guide efforts to establish and address current and additional nearshore resource management policies, goals and objectives:

Ecological

- Work to achieve healthy marine ecosystems by maintaining or improving overall environmental and natural resource health
- Recognize that coastal systems are naturally dynamic, changing over time and space.
- Obtain and incorporate the best available science at appropriate ecosystem scales
- Recognize the ecological links between terrestrial and marine systems

Public Involvement

- Enhance broad public input and participation at all levels of planning and decision making
- Value the contribution of local knowledge in scientific inquiry as a critical complement to other sources of information
- Assist citizens and stakeholders in obtaining clear, objective and relevant information

Governance

- Manage submerged lands and coastal waters to optimize their use and enjoyment by the public in accordance with the state's overarching public trust responsibilities
- Avoid new or duplicative layers of regulation or government
- Maintain a process that is realistic, affordable and achievable for state and local governments and volunteer organizations
- Work across political jurisdictions to address ecosystem challenges
- Encourage respectful, constructive, and earnest dialogue and collaboration
- Embrace tenets of "good government" including active interagency cooperation and collaboration, effective communication and high quality service to the public.

Compatible Uses

- Accommodate marine-dependent uses along the coast through multiple use management
- Maintain a working waterfront that supports traditional uses.
- Promote innovation and provide for new and existing industries and opportunities and that are consistent with protecting ecosystem health
- Provide ability for adaptive management

The Council recognizes that there are many possible opportunities for innovation or improvement of current public and private stewardship efforts that put these broadly-held principles into action. Under current authorities and with existing resources, state agencies are undertaking a variety of important efforts to protect and improve water quality, restore, maintain and enhance marine resources, and provide for and manage recreational opportunities, and otherwise protect and enhance economic and ecological values of the marine environment. A number of these efforts, such as those related to environmental monitoring or enforcement and development of scientific and technical basis for management of water quality and other resource values, by their nature involve on-going or multi-year commitments of available state staff and financial resources. From the perspective of trustee and manager of marine resources, prudent state investment in any additional efforts recommended in this study must complement and not divert or diminish efforts or resources devoted to currently supported marine resource

management-related initiatives and programs. Accordingly, many of the Council's recommendations focus on identifying and implementing opportunities for further coordination and integration of existing state efforts and leveraging additional resources through support for regional initiatives and related collaborations among municipalities, non-governmental organizations, marine industries and other public stakeholders.

The Council believes that its recommendations' incremental approach to improved nearshore management, while perhaps not as bold some stakeholders desire, is fiscally-sound, practical, and well-suited to Maine at this time. Overall, the study identifies a need to supplement existing state nearshore resources management efforts with additional, well-targeted and regionally orientated management efforts. At this time, there is notably limited financial and technical capacity at the local and regional levels to develop and implement regional management efforts, as well as a general lack of public awareness of the potential benefits and tools for regional management. Likewise, information resources, such as GIS tools and natural resources data-bases, useful for effective regional management are not generally available. Implementation of the report's recommendations, which are directed at overcoming these limitations while maintaining commitments to current and vital resource management efforts, can yield lasting significant benefits by putting the State in the position to take additional, well-informed actions in the future to support regionally-focused nearshore management.

Study methodology

DMR and SPO carried out the study at the Council's direction and in consultation with a neutral, third party project steering committee made up of eight public members⁶ with expertise in relevant fields as directed in the study legislation. State and federal agencies, non-governmental organizations and members of the public who participated in the study provided additional help and guidance. DMR created a website (<http://www.state.me.us/dmr/baystudy/baystudy.htm>) to help provide timely information on the study.

The basic study methodology, developed at the outset of the study was reviewed and approved by the Council. Public outreach, both to gain information and perspectives on issues of concern and to test policy options to address them, was an important component of the study. The following are primary elements of the study process, year

⁶ The steering committee members are: Paul Anderson, *Director, Maine Sea Grant*; Kathleen Billings, *Chair, Soft Shell Clam Advisory Council, Town of Stonington*; Heather Deese, *PhD Candidate, University of Maine*; Dewitt John, *Director of Environmental Studies, Bowdoin College*; Evan Richert, *Program Director, Gulf of Maine Census on Marine Life*; Jim Salisbury, *Retired CEO, Supreme Alaska Seafoods*; David Schmanska, *Harbormaster, St. George*; Barbara Vickery, *Director of Conservation Programs, ME Chapter of the Nature Conservancy*

one of which focused primarily on idea and information gathering, year two on development of recommended policy options:

Public Participation

- Development of website and e-mail list of interested parties;
- Conduct and analysis of a public participation survey and development of a public participation plan;
- Hosting of five public meetings at different locations on the coast and briefing of four statewide stakeholder groups to get early public input into the study;
- Sponsorship of a mid-course workshop at which twelve stakeholders presented their concepts for improvement of nearshore management;
- Consideration of public comments at project steering committee meetings;
- Sponsorship of sessions at Maine Fishermen's Forum in three consecutive years; and,
- Solicitation and consideration of public comments on draft recommendations through briefings of non-governmental and industry stakeholder organizations involved in the process, a public meeting, and notice opportunity to comment provided via e-mail to interested parties.

Project Input and Study Oversight

- Planning and support for eleven steering committee meetings (See Appendix B) at key junctures in the study to solicit advice and information related to information needs and development of policy options;
- Quarterly progress reports and briefings of the Land and Water Resources Council, which provided additional avenues for public involvement in the study process; and,
- Sponsorship of three (state) interagency meetings.

Pilot Projects

- Solicitation for and selection, funding and provision of staff support for two pilot projects; and
- Presentations of findings and recommendations from both pilot projects.

Research and Development of Recommendations

- Development of working definition of bay management and a study principles statement to focus and guide the study process; and
- Policy research, focused in three principal areas: bay management efforts in other states and countries; marine data and information resources needs and options to address those needs; and assessment of current and foreseeable uses and related trends in uses of Maine's nearshore environment.

The two, one-year pilot projects, each supported with a \$20,000 grant of federal CZMA funds, explored bay management planning concepts in Taunton Bay (Friends of Taunton Bay) and in Muscongus Bay (The Quebec/Labrador Foundation/Muscongus Bay Project Committee), respectively. These pilot projects' work involved a wide range of activities, including mapping of nearshore resources, gathering input from bay users,

hosting public meetings, developing ideas for public discussion, and identifying pressing problems and potential ways of tackling problems and local capacity needs. Lessons learned from these projects contributed significantly to the Council's understanding of the opportunities and challenges inherent in place-based, bay management and played a key role in informing and shaping its findings and recommendations regarding management principles and support for regional initiatives among other matters.

Geographic Extent of Study; Complexities of Nearshore Areas

The Legislature's study directive used the terms "bay" and "embayment" to describe the geographic extent of the area to be examined. During the course of the study, technical definitions were consulted and the general characteristics of Maine's embayments were examined. Maine has many varied types of embayments and public outreach efforts revealed that there were similar concerns about management of state waters along more open coastal areas. Thus study participants came to interpret the Legislature's intent as a call to look at "state waters", those areas from mean low tide out to three nautical miles, over which the state is the manager and trustee of public resources. In laymen's terms, these nearshore waters are "where the action is", those places where recreational, commercial and other types of uses typically intersect.

However, nearshore areas are different, ecologically and socially, than land or open water areas. Less is known about these environments than terrestrial resources, especially the land-water interface. A broad array of consumptive and non-consumptive activities take place in state waters, but those who most directly rely on the health of bays (e.g., commercial fishermen) cannot control many of the factors that affect nearshore resources (e.g., stormwater runoff). State waters are held in trust for the public, yet leasing of submerged lands for commercial and residential use, placement of fixed fishing gear and assignment of private moorings has created formal and informal private interests in certain areas of bottom.

There are added complexities when one considers governance structures that currently exist in nearshore waters. There is no overarching governance structure and no state management plan for submerged lands. While stakeholder participation is evident in both land side (watershed) water quality efforts and marine resource management efforts (lobster zones, and others), there is no construct for consideration of the nearshore as a whole.

What is "bay management?"

During the course of this study it became evident that the term "bay management" (indeed, even the term "bay" itself) can and does mean many, differing things to many people. By way of example, in other parts of the country and the world, bay management has included: identification of places in the water that are appropriate for certain uses; citizen stewardship efforts; research to better understand how bays work and application of that research to management decisions; and resolution of user conflicts. While the term "bay management" connotes a new bay-by-bay regulatory structure for Maine's

nearshore embayments, the Council came to understand the term as a collective one that refers to a wide range of activities (both regulatory and non-regulatory) involving stewardship of our nearshore waters. The study further clarified that the issues, opportunities, and challenges facing Maine's coastal areas vary considerably from place to place, and change over time. In fact, through its pilot projects and other elements, the study was at times, focused on particular embayments, the topics of discussion became more focused over time on broad coastal and marine management themes. In light of these realizations, this study does not offer a uniform definition of "bay management", does not suggest a single model or recipe for bay management, and does not propose a new overall management structure for Maine's embayments. In fact, the term "bay management" proved less useful during the course of the study and was a source of confusion for stakeholders. Rather, this study essentially aims at finding ways to improve state agencies' ability, working together with other units of government and stakeholders, to identify and address issues and opportunities of particular regional concern while maintaining their commitments to existing resource management priorities serving the interests of the State as a whole.

Although the elements and focus of nearshore management will necessarily vary region by region and over time, the Council believes that the following elements, derived from the shared management principles outlined above, must form the foundation of any effective approaches to more regionally-focused nearshore management:

- Effective (and in many cases increased) use of local involvement to guide decision making;
- Application of the appropriate scale of management to resource management problems;
- Use of available and appropriate scientific information to identify options and guide decision-making;
- Sustainable use through support of both commercial and non-commercial uses and through protection of natural systems; and
- Improved inter-governmental coordination.

Purpose and Scope; Limitations

The main purposes of the study, as provided in the study legislation, were to explore the concept of bay management as a tool for planning and management of uses of near shore embayments and the potential role of local government in such planning and management, and to identify a menu of bay management options for consideration by the Legislature. The study legislation stemmed from recommendations provided in January 2003 by a Governor's Task Force on the Planning and Siting of Marine Aquaculture, which recommended that additional work be done on studying alternative ways of managing nearshore waters. Accordingly, this study does not attempt a comprehensive

assessment of the coastal management system at work in Maine in its entirety but focuses on state approaches to management of resources and issues that may be effectively addressed at the local and, in particular, the regional level. Since its geographic focus is on Maine's nearshore environment, evaluation of management approaches to marine resources and uses such as commercial ocean fisheries and shipping, which must take place on a broader geographic scale and in a national or even international context, are beyond the scope of this study. Similarly, the study does not attempt to evaluate the scientific or technical basis of standards by which coastal uses or resources are managed.

Several other efforts examining needed reforms to other aspects of state governance were taking place at the same time as the bay management study, including an evaluation of Maine's Comprehensive Planning and Land Use Regulation and a review of the Site Location of Development statute. Those evaluations and potential subsequent changes will likely enhance the recommendations of this report, as relates to regional land use and other types of planning and consideration of impacts of large scale development proposals. Given these efforts and the limited scope of this study, the Council did not focus on these related topics, but appropriate references to linkages to other efforts are included in the study text.

The study included an exploration of the current and anticipated future levels of use conflicts in nearshore waters and the study's recommendations include the establishment of some mechanisms to address conflicts both at the state policy level and at the regional embayment level. However, the Council acknowledges that 1) some level of ongoing conflict is typically inherent in the management of natural resources, 2) it is impossible to foresee all potential future complexities regarding Maine's nearshore resources and 3) ongoing debate over policy preferences concerning coastal and marine resources is healthy, especially when management structures are flexible enough to accommodate change.